

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Applicants : Isao WASEDA et al.

Group Art Unit : 3753

Appl. No. : 10/565,298
(U.S. National Stage of PCT/JP2004/010721)

I.A. Filed : July 28, 2004

Confirmation No. 7130

Examiner : Not Yet Assigned

For : HEAT TRANSFER TUBE PANEL MODULE AND METHOD OF
CONSTRUCTING EXHAUST HEAT RECOVERY BOILER USING
THE MODULE

COMPLETION OF RECORD

Commissioner for Patents
U.S. Patent and Trademark Office
Customer Service Window, Mail Stop AMENDMENT
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir :

In accordance with the duty of disclosure under 37 C.F.R. §1.56 and §§1.97-1.98, Applicant hereby submits a copy of an English language translation of an International Preliminary Examination Report dated May 15, 2006, with respect to patent family member International Patent Application No. PCT/JP2004/010721, in which the following documents were cited:

U.S. Patent No. 5,339,891;

Japanese Laid-open Patent Publication No. 2001-41409, together with an English language abstract of the same;

Japanese Laid-open Patent Publication No. SHO 62-266301;and

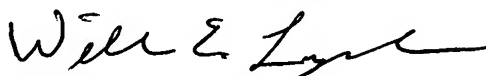
Japanese Laid-open Patent Publication No. 2002-168403.

The relevance of the documents to the claims of the International Application are as indicated by the Japanese Examiner applying Japanese law in the above noted Report.

Applicants note that all of the above-noted documents were previously cited in the Information Disclosure Statement filed on May 2, 2006 , and thus copies of these documents are not provided herewith. No fee or certification is required to ensure consideration of these materials.

Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,
Isao WASEDA et al.



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June 23, 2006
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PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

MATSUNAGA, Takayoshi
Kagoshima Bldg.,
3-chome,
Chuo-ku,
Tokyo 103-0027
JAPON

15-2, Nihonbashi

Date of mailing (<i>day/month/year</i>) 26 May 2006 (26.05.2006)	
Applicant's or agent's file reference PC3868	IMPORTANT NOTIFICATION
International application No. PCT/JP2004/010721	International filing date (<i>day/month/year</i>) 28 July 2004 (28.07.2004)
Applicant Babcock-Hitachi Kabushiki Kaisha et al	

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Yoshiko Kuwahara
Facsimile No.+41 22 740 14 35	Facsimile No.+41 22 338 90 90

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PC3868	FOR FURTHER ACTION		See item 4 below
International application No. PCT/JP2004/010721	International filing date (<i>day/month/year</i>) 28 July 2004 (28.07.2004)	Priority date (<i>day/month/year</i>) 30 July 2003 (30.07.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant Babcock-Hitachi Kabushiki Kaisha			

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 <i>bis</i> .1(a).																								
2.	This REPORT consists of a total of 5 sheets, including this cover sheet. In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<input type="checkbox"/>	Box No. VII	Certain defects in the international application																							
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Date of issuance of this report 15 May 2006 (15.05.2006)</td> </tr> <tr> <td style="padding: 5px;">Authorized officer Yoshiko Kuwahara</td> </tr> <tr> <td style="padding: 5px;">Telephone No. +41 22 338 90 90</td> </tr> </table>	Date of issuance of this report 15 May 2006 (15.05.2006)	Authorized officer Yoshiko Kuwahara	Telephone No. +41 22 338 90 90
Date of issuance of this report 15 May 2006 (15.05.2006)				
Authorized officer Yoshiko Kuwahara				
Telephone No. +41 22 338 90 90				

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference
PC3868

FOR FURTHER ACTION
See paragraph 2 below

International application No. PCT/JP2004/010721	International filing date (day/month/year) 28.07.2004	Priority date (day/month/year) 30.07.2003
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International Patent Classification (IPC) or both national classification and IPC

Applicant
Babcock-Hitachi Kabushiki Kaisha

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/010721

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☐

in written format

☐

in computer readable form

c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/010721

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-16	YES
	Claims		NO
Inventive step (IS)	Claims	2, 4, 7, 9, 11-13	YES
	Claims	1, 3, 5, 6, 8, 10, 14-16	NO
Industrial applicability (IA)	Claims	1-16	YES
	Claims		NO

2. Citations and explanations:

Document 1: US 5339891 A (The Babcock & Wilcox Company), 23 August 1994, column 3, line 28 to column 6, line 36; Figs. 3-4

Document 2: JP 2001-41409 A (Babcock-Hitachi Kabushiki Kaisha), 13 February 2001, paragraphs 0018-0020

Document 3: JP 62-266301 A (The Babcock & Wilcox Company), 19 November 1987, page 4, lower right column, line 3 to page 5, upper left column, line 7; Fig. 3

Document 4: JP 2002-168403 A (Mitsubishi Heavy Industries, Ltd.), 14 June 2002, paragraph 0033, Figs. 6-7

The inventions of claims 1 and 8 do not involve an inventive step on account of document 1 (column 3, line 28 to column 6, line 36) cited in the ISR. In the invention of document 1, providing a casing and bottom wall portion pillars integrated with a heat transfer tube group panel module or constructing it in advance at a construction site are merely matters to be appropriately decided by a person skilled in the art.

The inventions of claims 3 and 14 do not involve an inventive step on account of document 1 and document 2 (paragraphs 0018-0020) cited in the ISR. Employing the fixing member (spacer plate 5) described in document 2 in the invention of document 1 would be easy for a person skilled in the art.

The inventions of claims 5 and 10 do not involve an inventive step on account of document 1 and document 3 (page 4, lower right column, line 3 to page 5, upper left column, line 7; Fig. 3) cited in the ISR. Employing the anti-quake brace (tubular reinforcing materials 92, 94) described in document 3 in the invention of document 1 would be easy for a person skilled in the art.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/010721

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

The invention of claim 6 does not involve an inventive step on account of document 1, document 2, and document 3. Employing the fixing member (spacer plate 5) described in document 2 and the anti-quake brace (tubular reinforcing materials 92, 94) described in document 3 in the invention of document 1 would be easy for a person skilled in the art.

The inventions of claims 15 and 16 do not involve an inventive step on account of document 1 and document 4 (paragraph 0033, Figs. 6-7) cited in the ISR. Employing the gas short path prevention plate (U-shaped plate 32) described in document 4 in the invention of document 1 would be easy for a person skilled in the art.